

Amendments To The Specification:

Please amend the paragraphs on page 16, line 10 to page 17, line 6 as follows:

An alternative solution to the problem of designing balloons for rapid exchange catheters, especially those used to place stents, is a further aspect of the present invention. The inventive balloon has a guidewire channel 85 through the balloon as shown in FIG. 9. Instead of having the pressure chamber on one side of the guidewire, as in the above patents, Figure 9 depicts a balloon 80, having a longitudinal axis 82, a central body portion 84 and proximal and distal tapering cone portions 86, 87. A longitudinal guidewire channel 85 is provided entering and emerging through the tapered cone walls 86, 87. A guide wire 92 is shown extending through channel 85. With this design the pressure chamber entirely surrounds the guidewire channel 85. Consequently, the pressure on the guidewire channel is equally exerted from all directions. Therefore the guide wire channel is not forced against the wall of the balloon during inflation and the pressure on the stent is equally distributed.

One way to produce such a balloon starts from a form as shown in FIG. 6. An axially extending hole 90, spaced radially out from the axis at a distance less than the outer wall is then drilled through the balloon portion 75 of ice form 70 to produce the modified form as shown in Fig 7. Dipping or spraying the photocurable composition, and subsequent radiation curing produces a balloon 96 having an integrally formed off-axis longitudinal guidewire channel 95 85. Radiation curing of the photocurable composition may be accomplished, for instance, by irradiating through the ice form or by directing a beam obliquely along hole 90. Curing the composition film and melting the ice or wax will leave a balloon shape as shown in FIG. 8 where the wall of the balloon extends through the length of the hole. It is of course also possible to generate this hole during the production of the ice shape by having a wire in place during the

freezing process and removing the wire later on. If one uses a metal wire for this, one can easily release it out of the ice shape by sending an electric current through it, heating the wire.

Another way to form the guide wire channel 95 85 of the balloon as in Fig. 9 uses a separately formed tube which is inserted into the hole 90 of the form 70 of Fig. 7 before the outside of the form 70 is coated and cured. Such tube may be formed in the manner described herein, or by any other means, and may be the same material as the rest of the balloon or a different material. The tube may be formed with fibers extending outward beyond the thickness of the tube at its ends in order to improve bond strength between balloon outer wall and the separately formed guide wire channel 85.

Please amend the paragraph on page 18, lines 12-20 as follows:

Figures 11A-C illustrate yet another embodiment of the invention. In Fig. 11A, a basic balloon form 110 of ice or other fluidizable solid is shown. To the form 110 have been applied a first polymer layer forming circumferential bands 112 and 114. The bands 112 and 114 are elastic materials which have been stretched from their rest diameter to reach their diameter on the form. The elastic material may be silicone or other rubbery material, but is one to which the cured polymer film formed of the curable composition will adhere. ~~The~~ A second polymer layer formed from a curable composition 116 is then applied by spray or other technique, over the entire form, including over the bands 112 and 114, as shown in Fig 11B, and then cured to form a balloon with the bands 112 and 114 embedded therein. In Figure 11C, when the fluidizable form has been removed, the composite balloon is stressed by the bands 112, 114 to collapse to their rest position. This aids in obtaining a small deflated profile. Bands placed as depicted here, or in other configurations may also be used to alter balloon distension curves.